

mesenteriid laminae. The sclerobase is very delicate, and its surface is marked with striæ like those of red coral.

An Isidine coral is described under the name of *Melitea oranensis*. The remains are rootlets and calcareous joints, of various form, but presenting the form and structure of those of *Melitea*. The ramification was dichotomous.

A fragment of a sclerobasic axis of stony texture and formed of concentric layers is referred by the author to the genus *Gorgonella*, under the name of *G.? anomala*.

Of the Pennatulidæ the author notices the following forms:—*Virgularia sahelensis* had a long, cylindrical, straight, and smooth style, showing a radiated structure; *Graphularia barbara* had a style differing from the type of the genus in wanting the longitudinal furrow; *Cœlographula subcompressa* is the type of a new genus having a fistulous style. The style is elongated, straight, nearly smooth, slightly compressed, convex on one surface, a little depressed at the edges of the opposite side, the middle of which has an obsolete ridge.

These species, except the last, are found in the vicinity of Oran, in beds named Sahelian by the author and synchronous with the Tortonian beds of the Italian geologists. *Cœlographula subcompressa* occurs in the Cartennian of Milianah, immediately below the Helvetian with *Ostrea crassissima*.—*Comptes Rendus*, November 9, 1868, p. 963.

*Are Unios sensitive to Light?* By C. A. WHITE.

Those who have studied the habits of *Unios* in their native element are of course well aware of their habit of burying themselves in the mud or sand, leaving only the posterior portion projecting, for the purpose of giving ingress and exit to the respiratory currents of water. The sensitiveness of the margins of the incurrent and excurrent orifices to the slightest touch is also well known; but during the past summer, while collecting mollusks in one of the rivers of Central Iowa, I became convinced that these, or adjacent parts, were also keenly sensitive to light.

*Unios* were found numerously occupying the position referred to, plying their currents industriously through their distended orifices; but whenever my shadow in the bright sunlight came suddenly upon them, they invariably closed their orifices quickly and completely. This was repeated a great many times, and upon the same individuals, to assure myself that it was not caused by any agitation of the water or movement of impurities in it that might produce irritation of the parts. It was evidently the interception of the sun's rays alone that caused them so suddenly to close their orifices; yet it is worthy of remark that they did not quickly close them if sunlight was suddenly admitted to them while respiring in the shade.

The question then arose in my mind as to the possibility that the parts were sensitive alone to the rays of heat from the sun and not

to those of light. Above the Unios was from one to two feet in depth of clear running water, rendering everything upon the bottom distinctly visible.

Believing that the sun's radiation coming directly toward any object so far beneath the surface of the water would have its heat-rays mostly, if not entirely, separated from the light-rays, at or near the surface, through the absorption of these and their removal downwards by the current, while nearly all the rays of light would pass on to the object with only slight refraction, I sought a place where rays of heat from sunlight, striking the surface further up the stream, would not reach the Unio to be experimented upon. This was furnished by a dense growth of trees, shading the stream completely for a considerable distance. Then placing a Unio just at the lower margin of the shade, but quite within the bright sunlight, I awaited the opening of the orifices; then, on quickly intercepting the sun's rays that came freely to it, by passing a screen from above downward, and again from below upward; it responded by closing its orifices as quickly as its fellows had done when my shadow passed over them in the broad open space of sunlight.

Upon the supposition that the light- and heat-rays are divided at the surface of the water, as before suggested, the heat-rays must all, or very nearly all, have passed down below the Unio, by the action of the current, while the light-rays alone reached it, and their sudden interception caused it to close its orifices. Thus in this position the Unio was receiving direct rays of light from the sun, but the rays of heat that might have reached it more or less obliquely, by absorption and the action of the current, if in an open space of sunlight, were here cut off by the long shadow of the trees. Therefore no doubt is entertained that the posterior portion of these mollusks is keenly sensitive to light; but exactly what organs are thus sensitive has not been ascertained.—*Silliman's American Journal*, March 1869.

*The Sea-Elephant (Morunga proboscidea) at the Falkland Islands.*

By Dr. J. E. GRAY, F.R.S. &c.

In the 'Annals & Mag. Nat. Hist.' for March 1868, p. 215, I stated that the sea-elephant had become extinct in the Falkland Islands. Mr. Selater, in the 'Proceedings of the Zoological Society' for 1868, p. 189, says that this statement was a mistake; but in his account of the proceedings of Adolphe Alexandre Lecomte, who was sent by the Zoological Society to collect Sea-lions and Penguins for the Collection, he now confirms my first statement, and observes, "Elephant Island, so called from the former abundance of the sea-elephant (*Morunga proboscidea*), was found to be quite deserted by this animal, which is said to be now entirely extinct in the Falklands." (See Proc. Zool. Soc. 1868, p. 527.)